

2. An electroluminescence display device according to claim 1 wherein said transparent electrode comprises indium tin oxide.

3. An electroluminescence display device according to claim 1 wherein said barrier metal layer contains nitrogen.

6. An electroluminescence display device comprising:

a substrate having an insulating surface;

a first thin film transistor disposed over said substrate, wherein said first thin film transistor comprises an active layer comprising crystalline silicon including source, drain and channel regions, and a gate electrode adjacent to the channel region;

a second thin film transistor disposed over said substrate, said second thin film transistor comprising an active layer comprising crystalline silicon including source, drain and channel regions, and a gate electrode adjacent to the channel region, said gate electrode of the second thin film transistor being electrically connected to said drain region of the first thin film transistor;

an electrode comprising aluminum for electrically connecting said transparent electrode and said drain region of the second thin film transistor; and

an electroluminescence layer comprising an organic material disposed adjacent to said transparent electrode,

wherein a direct contact between said electrode and said transparent electrode and a direct contact between said electrode and said drain region of the second thin film transistor are prevented by a barrier metal layer comprising titanium interposed therebetween.

7. An electroluminescence display device according to claim 6 wherein said barrier metal layer further contains nitrogen.

8. An electroluminescence display device according to claim 6 further comprising a counter electrode opposed to said transparent electrode with said organic

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electroluminescence layer interposed therebetween, wherein said counter electrode comprises magnesium and silver.

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9. An electroluminescence display device comprising:
a substrate having an insulating surface;
a thin film transistor formed over said substrate, said thin film transistor comprising an active layer comprising crystalline silicon including source, drain and channel regions;
an electrode comprising aluminum electrically connected to one of said source and drain regions;
a barrier metal layer interposed between said electrode and said one of the source and drain regions to prevent a direct contact therebetween;
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E1 a transparent electrode electrically connected to said thin film transistor;
an organic electroluminescence layer adjacent to said transparent electrode;
an electroluminescence layer comprising an organic material disposed adjacent to said transparent electrode, and
a peripheral driving circuit comprising another thin film transistor formed over said substrate,
wherein said barrier metal layer comprises titanium.

10. An electroluminescence display device comprising:
a substrate having an insulating surface;
at least one X-direction signal line over said substrate;
at least one Y-direction signal line crossing said X-direction signal line;
a thin film transistor formed over said substrate at an intersection of said X-direction signal line and said Y-direction signal line, said thin film transistor comprising an active layer comprising crystalline silicon including source, drain and channel regions;
a transparent electrode electrically connected to said thin film transistor;
an electroluminescence layer comprising an organic material adjacent to said transparent electrode; and

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a peripheral driving circuit comprising another thin film transistor formed over said substrate for supplying a signal to one of said X-direction signal line and said Y-direction signal line wherein said another thin film transistor has an active layer comprising crystalline silicon.

E² 15. An electroluminescence display device comprising:
a substrate having an insulating surface;
at least one X-direction signal line over said substrate;
at least one Y-direction signal line crossing said X-direction signal line;
at least one pixel defined at an intersection between the X-direction signal line and the Y-direction signal line;
at least one switching thin film transistor and one current control thin film transistor provided over the substrate in said pixel;
an electroluminescence layer comprising an organic material over the substrate;
and
a peripheral driving circuit comprising at least a third thin film transistor formed over said substrate for supplying a signal to at least one of said X-direction signal line and said Y-direction signal line,
wherein each of the switching thin film transistor, the current control thin film transistor and the third thin film transistor comprises a semiconductor layer comprising crystalline silicon and including source, drain and channel regions, a gate insulating film adjacent to the semiconductor layer and a gate electrode adjacent the gate insulating film.

E³ 17. An electroluminescence display device comprising:
a substrate having an insulating surface;
at least one X-direction signal line over said substrate;
at least one Y-direction signal line crossing said X-direction signal line;
at least one pixel defined at an intersection between the X-direction signal line and the Y-direction signal line;
at least one switching thin film transistor and one current control thin film transistor provided over the substrate in said pixel;

an electroluminescence layer comprising an organic material over the substrate;
and

a peripheral driving circuit comprising at least a third thin film transistor formed
over said substrate for supplying a signal to at least one of said X-direction signal line
and said Y-direction signal line,

wherein each of the switching thin film transistor, the current control thin film
transistor and the third thin film transistor comprises a semiconductor layer comprising
crystalline silicon and including source, drain and channel regions, a gate insulating film
adjacent to the semiconductor layer and a gate electrode adjacent the gate insulating
film, and is manufactured through the same process.

Please add new claim 19 as follows:

--19. An organic electroluminescent display device, wherein a pixel array
composed of an organic electroluminescent device is provided on an insulating
substrate, an island having a polycrystalline silicon semiconductor formed thereon in a
predetermined pattern is provided on said substrate, and a thin film transistor formed in
the island is used as a pixel driving device and a peripheral driving circuit device.--